

underneath the patterned passivation layer 20. The MEMS capacitor also comprises contact electrodes 120 on the substrate 20 and underneath at least one of the anchors 30. The electrodes 115, 120 may be made of metal, High Temperature Superconductor (HTS) material or other conductive material. In this embodiment, the suspended beam 25 acts as a top electrode of the MEMS capacitor. The gap and dielectric material (i.e., passivation layer 20) between the beam 25 and the underlying bottom electrode 115 determines the capacitance of the MEMS capacitor. The capacitance of the MEMS capacitor is varied by varying a bias voltage applied to the capacitor.. The applied bias voltage establishes an electrostatic force on the beam 25 that bends the beam 25 relative to the bottom electrode 115, thereby varying the gap between the beam 25 and the bottom electrode 115. This in turn varies the capacitance of the MEMS capacitor. The passivation layer 20 overlying the bottom electrode 115 is patterned into a plurality of spaced protuberances 40 to alleviate stiction, e.g., "in use" stiction associated with electrostatic pull down of the beam 25. --

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In the Claims

Please cancel claims 27-38 without prejudice.